



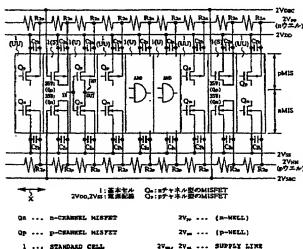
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(54)Title: SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURE

(54)発明の名称 半導体装置およびその製造方法



(57) Abstract

A source/drain region and a power supply conductor (2) (VDD) of an unused p-channel MISFET (Q_p) are electrically connected, while a source/drain region and a power supply conductor (2) (VSS) of an n-channel MISFET (Q_n) are electrically connected. Switch elements (3SW1) and (3SW2) are composed of a p-channel MISFET (Q_p) and an n-channel MISFET (Q_n), respectively, in a standard cell (1), and a plurality of such switch elements are distributed in an n-well (NWL) and a p-well (PWL). Since the switch elements are arranged between the power supply conductor and the well, the threshold voltage of the transistors formed in the wells is controlled by the on-off control of the switches, and noises are reduced in the wells.

ABSTRACT OF THE DISCLOSURE

The semiconductor regions for source and drain of unused p-channel type MISFETQp and the power supply wiring 2VDD are electrically connected and the semiconductor regions for source and drain of n-channel type MISFETQn and the power supply wiring 2VSS are electrically connected. Moreover, the switch elements 3SW1, 3SW2 are formed of the p-channel type MISFETQp and n-channel type MISFETQn in the basic cells and these switch elements 3SW1, 3SW2 are discretely arranged in the n-well NWL and p-well PWL. Thereby, noise generated in the wells can be reduced in the semiconductor device where the switch elements are provided between the power supply wiring and wells and the threshold voltage of transistor formed in the well can be controlled through the ON/OFF controls of such switch elements.